

What is claimed is:

1. A method for processing a signal and a bearer separately in an ALL IP network system including one or mobile
5 stations, one or more radio networks and one or more core network, the method comprising the steps of:

a) transmitting a service request message from the mobile station to the radio network;

b) at the radio network, determining whether a circuit-
10 related service or a packet-related service is requested;

c) if the packet-related service is requested, transmitting the service request message from the radio network to the core network without performing any process of the service request message;

d) at the core network, performing a process of the service request message and requesting the radio network to assign the bearer for user data; and

e) assigning the bearer in response to the assignment request.

2. The method as recited in claim 1, wherein the radio network includes a RNCS and a radio bearer function (RBF) unit, the radio bearer function unit performing bearer assignment.

3. The method as recited in claim 2, wherein the core network includes a mobile switching center (MSC) server and a session manager, the session manager managing a packet-related

message.

4. The method as recited in claim 3, wherein whether the circuit-related service or the packet-related service is requested is determined by reading out an address of a TCP/IP header allocated to each service request message.

5. The method as recited in claim 4, wherein if the address of the TCP/IP header has an address of the session manager, it is determined that the packet-related service is requested.

6. The method as recited in claim 5, wherein the step e) includes the steps of:

15 e1) transmitting a response message related to the service request from the RNCS to the mobile station;

e2) at the RNCS, requesting the radio bearer function (RBF) unit to assign the bearer; and

20 e3) at the radio bearer function (RBF) unit, assigning the bearer.

7. Computer-readable record media storing instructions for performing a method for processing a signal and a bearer separately in an ALL IP network system including one or mobile stations, one or more radio networks and one or more core network, the method comprising the steps of:

a) transmitting a service request message from the mobile

station to the radio network;

b) at the radio network, determining whether a circuit-related service or a packet-related service is requested;

c) if the packet-related service is requested,
5 transmitting the service request message from the radio network to the core network without performing any process of the service request message;

d) at the core network, performing a process of the service request message and requesting the radio network to
10 assign the bearer for user data; and

e) assigning the bearer in response to the assignment request.

8. The computer-readable record media as recited in claim
15 7, wherein the step e) includes the steps of:

e1) transmitting a response message related to the service request from the RNCS to the mobile station;

e2) at the RNCS, requesting the radio bearer function (RBF) unit to assign the bearer; and

20 e3) at the radio bearer function (RBF) unit, assigning the bearer.